Wisconsin Urban & Community Forests
A Quarterly Newsletter of the Wisconsin Department of Natural Resources, Forestry Division
Growing. Giving. — 2004 • YEAR OF — WISCONSIN FORESTRY

The Urban Jungle

by Clair David Urbain, Editorial Director
Contractor Tools and Supplies Magazine
Fort Atkinson, Wisconsin

Reprinted with permission from the September/October 2003 issue of Contractor Tools and Supplies *magazine. It is heartening to see that a contractor trade magazine has taken on urban forestry in a positive light. – Dick Rideout, Editor.*

Cities are gaining new respect for trees. Here's how contractors are working with the city of Milwaukee to protect mature trees and make room for more on construction projects.

Whether your work takes you to an established neighborhood or to a newly zoned industrial park, there is a good chance that trees stand in the way of fast, efficient progress.

Trees are sitting targets for removal in the name of progress. They suffer unintentional, but every bit as lethal, hits because no one on the job site—or the design room, for that matter—truly understands how trees live in the urban jungle.

Even when designers work mature trees into their site plans, many die within a few years because of the damage contractors commit during construction.

A generation—maybe two—passes before many trees in urban areas reach the size and grandeur that makes neighborhoods and business parks distinctive. The trees stand as sentinels, offering shade, protection and a welcome visual break from the otherwise gray canyons of the urban landscape.

They also provide benefits that save the community money in water runoff costs, cooling and air quality.

Fallen Trees Raise Awareness

The city of Milwaukee learned how construction affects the health of its cityscape in a big way in 1978 when the contractors it hired finished a sidewalk replacement project in a section of a long-established residential area. It had hundreds of mature trees.

"When a storm came through in August of 1978, the city lost 90 trees in that area. The aldermen demanded that changes take place," says Jim Kringer, forestry inspector for Wisconsin's largest city.

To that point, the city's forestry program didn't deal much with construction issues. But when city officials learned the sidewalk reconstruction projects cut the support roots of the 50- to 150-year-old trees and made them susceptible to blowing over, they implemented a program to help Milwaukee rebuild its aging infrastructure without sacrificing its mature trees.

It was the beginning of a career for Kringer as a "professional tree hugger," as he puts it. Contractors who worked with him over the past two decades refer to him as "Mr. Woody."

"When this program started, the city of Milwaukee was losing up to 400 trees annually to uprooting.

continued on page 4

Photo by Kristina Slowronski, WDNR

Saukville Arbor Day. For more Arbor Day photographs, see page 14.

WISCONSIN DEPT. OF NATURAL RESOURCES

Volume 12 Number 2

Summer 2004

Inside this issue:

Community Profile:

Village of Clinton

2

Community Profile:
Tree City USA:
Since 2003
Population: 2231
Street Tree
Population: 530
Park Tree Population:
515
Miles of Street: 9
Number of Parks: 3
Total Park Acreage: 64

Program Profile:
Tree Board:
Bill Ruston, trustee
and chairman
Dave Brown, village
forester
Art Bushue, trustee
Carol Hahn
Debbie Randall
Linda Smith
Connie Tracy
Clinton Tree Advisory
& Service
Committee:
Art Bushue, chairman
Dave Brown, village
forester
Lance Bagley

Equipment:
pickup truck
brush chipper
watering trailer
backhoe
manual tree pruner
others by contract

2004 Program Statistics:
trees planted: 54
trees removed: 3
trees inventoried: 510
forestry seminars: 2

2004 Operating Budget:
$10,359

by Arthur Bushue
Village Trustee

The Village of Clinton, located in southeastern Rock County, was initially settled in 1837 but was relocated 1 1/2 miles east of the original site due to the completion of two railroads in 1856. Clinton was incorporated as a village in 1882, with 931 residents. Clinton is surrounded by fertile farmlands and is considered scenic and friendly.

Like many municipalities its size, Clinton's forestry program had been managed in a typically piecemeal fashion by its department of public works. However, in 1998 the park board initiated a volunteer floral beautification program to provide more scenic color, thereby expanding the community's image. Meanwhile, a resident contacted the park board to discuss forestry deficiencies in the village, and suggested that a municipal forestry program be implemented to complement the floral beautification program and further recommending that we strive for Tree City USA status from the National Arbor Day Foundation.

A review of the village's existing forestry program convinced the park board that the resident's position was appropriate and in early 1999, the Clinton Arbor Day Committee (CADC) was formed. The committee began to introduce village leaders and residents to the benefits of a comprehensive municipal forestry program.

On May 1, 1999, Clinton observed its first Arbor Day. Mr. Joe Bellante, our elementary school principal, supported the 5th-grade Arbor Day poster contest by displaying students' forestry posters in a local bank lobby and providing prizes to all participants. Our Arbor Day committee developed an official proclamation, later approved by the village board. The celebration included the planting of a tree in a park, involved dignitaries and organizations and was publicized in local media.

Clinton's first Tree City USA flag is displayed proudly from the village library.

We began to draft a community forestry ordinance, coordinating with all pertinent municipal government bodies to obtain understanding, input and support. We also developed a municipal nursery that contains about 130 young trees for eventual transplanting to village parks and other public areas.

In late 2001, CADC was awarded $1500 from Alliant Energy to plant appropriately sized trees under utility lines on 19 Clinton residential terraces. A local landscaping firm planted them in May, 2002, at virtually no cost to the village. Recently, Alliant Energy informed Clinton that its forestry program ranks among the best for villages its size in southeastern Wisconsin.

Clinton's forestry ordinance was finally enacted in May 2002. It directed the existing park board to act as

continued on page 3

Wisconsin Urban & Community Forests
A Quarterly Newsletter of the Wisconsin Department of Natural Resources, Forestry Division

Published quarterly by the Wisconsin Department of Natural Resources, Forestry Division.

Address inquiries to Dick Rideout, Wisconsin Department of Natural Resources, PO Box 7921, Madison, WI 53707

Editor: Dick Rideout
Contributors: Cindy Casey, Don Kissinger, Tracy Salisbury, Kim Sebastian, Jessica Schmidt, Kristina Skowronski

PRINTED ON RECYCLED PAPER

Articles, news items, photos and ideas are welcome.

This newsletter is available in alternative format upon request.

This newsletter is made possible in part by a grant from the United States Department of Agriculture Forest Service. The USDA prohibits discrimination in all its programs and activities on the basis of race, color, national origin, gender, religion, age, disability, political beliefs, sexual orientation, and marital or family status. To file a complaint call (202) 720-5964.

Project Profile:

16th Street Community Health Center – Menomonee River Valley Revitalization

3

by Kristina Skowronski, DNR Southeast Region and Mary Beth Driscoll, Sixteenth Street Community Health Center

The Sixteenth Street Community Health Center's Department of Environmental Health works to prevent health problems by addressing environmental conditions facing families in its service area—the near south side of Milwaukee—through a holistic and practical approach. Its service area has the highest concentration of contaminated properties (the largest brownfield site in Wisconsin), the highest population density and some of the lowest income averages (with a high percentage of under-employed population) in the state.

As an initiative to improve the health of the community and restore the Menomonee River Valley, the Sixteenth Street Community Health Center obtained an urban forestry grant in 2002 to host a national design competition and create an urban forestry strategic plan for the Menomonee Valley.

The design competition challenged design experts to create new designs to restore and enhance the natural features and urban impact of the Menomonee Valley. Over 140 firms from around the world responded to the Request for Qualifications. Ultimately four teams were chosen to participate in contributing designs that integrated native landscaping and vegetative species diversity, increased tree canopy coverage, restoration of riparian corridors, water quality, storm water management and native wildlife diversity. The winning firm, Wenk Associates, provided detailed designs for how the ecological restoration, open space and public access will look in the 21st century and how it will be integrated into new developments slated for the valley.

The second part to this grant was the creation of an urban forestry strategic plan for the valley. Today, within this 1500-acre urban river valley, the urban forest is severely depleted and the urban tree canopy is lacking, according to a 1996 ecological analysis conducted by American Forests. According to a baseline analysis conducted by the University of Wisconsin–Milwaukee Geography Department and the Sixteenth Street Community Health Center, only 3.7 percent of the valley is covered with urban tree canopy.

The Menomonee River and Valley are perceived to have little or no recreational and ecological appeal and the majority of the land within the valley either stands vacant or is under-utilized for storage of sand, salt, coal and junked vehicles. Furthermore, neighborhood residents surrounding the valley continue to struggle with impaired air quality, ozone action days and increased emissions from vehicles on the maze of freeways immediately around the valley.

The urban forestry strategic plan created a new, coordinated, coherent valley-wide vision of sustainable Best Management Practices to guide urban forestry restoration and enhancement of the Menomonee River Valley. These Best Management Practices are being marketed under the auspices of the Menomonee Valley Sustainable Design Guidelines, which offer property owners and developers a systematic framework for including sustainability principles in their projects. To obtain a copy of the sustainable design guidelines for the Menomonee Valley, call Ben Gramling at 414-672-1315, extension 374.

Call Mary Beth Driscoll at 414-672-1315, extension 270, to request a copy of their publication describing the design competition. The document will soon be posted on the Web at www.renewthevalley.org. For more information on Sixteenth Street Community Health Center, check out their Web site at www.sschc.org/. Developers and businesses can learn more about opportunities for locating and investing in the valley by calling Menomonee Valley Partners at 414-274-4655.

Village of Clinton

continued from page 2

the village forestry board and to implement a forestry ordinance for the village. It required a comprehensive community urban forestry plan and also called for a village forester to provide technical expertise. Mr. Dave Brown, a park board member who had recently become a certified master gardener, was named village forester.

Clinton worked with DNR's urban forestry program to obtain copies of other similar urban forestry plans and used these to help draft such a plan for Clinton. It was approved by the forestry board and then adopted by the village board in August 2002. The plan required a tree inventory on all public lands, so in summer 2002 a computerized residential terrace tree

continued on page 12

The Urban Jungle

continued from page 1

Now, we see as few as two lost annually," he says. "We save 99 percent of the trees involved with city construction."

Understanding the Urban Jungle

In 1981, the city of Milwaukee hired Kringer to learn the ropes of forestry management. He was charged with finding a way to prevent tree damage. "It took two years of talking with engineers, designers and contractors to understand the problem. Many had the attitude that trees were an obstacle; they could be hacked on, bumped into and chopped away or easily replaced in the name of getting the job done. We had to change that perception," Kringer says. That was not easy.

Photo by Katherine Esposito, WDNR.

Jim Kringer on the job.

Mike LaLonde, one of the owners of LaLonde Contractors Inc.—a long-time street, sidewalk and local highway contractor for the city—says he and other contractors now have a whole different attitude about trees. "When I started as a setup foreman, protecting trees wasn't much of a priority for us. We did many things that caused additional expense because we didn't watch out for trees," he says.

For example, the slipform curb machine the company used to pour curb and gutter needed at least 1 foot of curb clearance to operate, which is typical for road reconstruction. That meant workers had to cut 1 foot back into the terrace to give the machine enough access to form the curb, but it tore up the brace roots of many otherwise healthy, mature trees.

"We worked on the equipment to move the rear track over and we relocated the curb mule so we could have zero clearance. Now, we can pour the curb without causing extensive tree damage," he says.

Where the tree roots have grown right up to or even over the old curb, crews first tear out the street, then pull away the section of the curb next to the tree. From there, Kringer prescribes surgical-like cuts that minimize tree damage. "Any cuts to tree roots are done with an axe. We do not allow mechanical root cutting because they can tear roots apart. Mature softwood trees like maples do not re-grow support roots, which are most likely to be cut when sidewalks and curbs are replaced. We closely monitor where roots are throughout construction. Our goal is not to disturb roots," Kringer says.

How to Save Trees

Saving trees starts at the design phase of the project. Kringer analyzes the site, then works with designers and engineers to develop plans that protect the trees.

"If a sidewalk is raised because a tree root grew underneath it, we will change the summit of the walk so it gradually raises and falls over the root instead of cutting it out. We may replace the sidewalk with an arc around the base of the tree, or we may narrow the sidewalk—or even the road—by as much as 1 foot to protect the trees," he says.

In some cases, a narrower curb head can save a tree. "A 7-inch curb head takes an additional 1 inch of root space from trees. We have gone to as narrow as a 4.5-inch curb head reinforced with rebar. We have even poured the curb as close as we can to the tree, then came back with a 10-foot straight edge that was pushed up against the curb by hand before it's fully cured to move it next to the tree," Kringer says.

Few contractors realize their actions affect tree roots. For example, vehicles parked in the shade of a tree compact the soil, compromising the tree's ability to soak up water and nutrients. Staging building materials under trees can suffocate roots, and in turn, the tree.

Roots are not the only part of the tree in danger during construction. Leaves and branches can be seared by the intense exhaust heat.

"We spent 15 dollars on a 45-degree elbow to put on our concrete paver to prevent the hot exhaust from torching tree leaves," says LaLonde. "Otherwise, we would have been fined thousands for leaf damage."

Excavators, wheel loaders and dump trucks can severely damage the tree canopy that reaches across city streets. "In our contracts, we suggest contractors use asphalt trucks with conveyors instead of dump boxes. They need less clearance, which cuts the chance of branch damage," Kringer says.

City crews also come in ahead of contractors and trim branches to a height of 14 feet above grade for clearance.

Underground utilities present ongoing challenges to tree health. In the past, tree vs. utility placement wasn't always carefully considered, so gas, water and sewer lines, and roots run together.

"In an emergency, sometimes the tree is sacrificed to make the repair, but we relocate utilities to prevent problems in the future," says Kringer, "Any new tree

must be planted 5 feet from gas and water shutoffs and 20 feet away from streetlights. We plant a tree only when we understand the site's big picture."

As curbs are replaced, cables that run along the street and near trees are installed inside a 1-inch- or 3-inch-diameter PVC conduit and placed behind the curb for easy access in the future.

City engineers are also incorporating green spaces in areas where there is none. As a street comes up for renovation, they add 6-by-12-foot green spaces for tree planting.

It's All in the Spec

To protect trees, Kringer outlines the tree challenges on the job in the Special Provisions section of the spec and offers contractors ways to address them. "The methods outlined in the Special Provisions are based on what has been developed by the successes we've had through work with designers, engineers and contractors. Contractors must consider those provisions as they prepare their bids," he says.

The Special Provisions section can run as long as six pages. It also outlines hefty fines if the contractor damages any trees during the job.

The penalties reflect the lost value and the cost for tree repair or replacement and are deducted from the contractor payment.

"We estimate the insured value of a 30-inch-diameter elm tree in a good neighborhood at $40,000. The common council authorizes a charge of $100 per diameter inch be assessed to the contractor if the tree needs to be removed. In addition, the removal process requires two men and a boom truck, two men and a chipper, a ladder operator and a backfill crew just to remove the tree. Even though a new tree planting may only cost $400, the total replacement cost charged to the contractor can be as high as $10,000," he says.

"Contractors often view the value of the tree as what it would cost to replace it. But if you can work around trees, they accentuate the value of your work. If all of the beautiful trees stay, they add value to the project.

"The Milwaukee Municipal Sewer District wants to double the number of trees in the city. The MMSD estimates that trees save $21 million a year in runoff management by absorbing 15.5 million gallons of rainwater that would have to be processed through the storm sewer system. It also estimates that the trees provide $4.4 million in pollution abatement and the equivalent of $2.1 million in cooling cost savings. That's why trees are so important to the city. Besides, they help property values tremendously," Kringer says.

Common Tree Myths

5

Much of the damage trees suffer at the hands of contractors is caused by lack of knowledge. Jim Kringer, city of Milwaukee forestry inspector, lists the most common misunderstandings contractors have about trees and how they grow:

Breaking off a branch won't hurt the tree. Wrong. A limb torn from a tree can open up a large, gaping wound which can expose as much as three times the surface area, allowing disease or decaying organisms to enter the tree. Good planning can avoid losing tree branches altogether.

Hitting a tree's bark doesn't cause much damage. The layer just under the bark is the cambium, which regenerates cells for the xylem and phloem. They move water and nutrients from the roots to the leaves and return nutrients to the roots. Cambium damage is irreversible and any nick, ding or hit will affect the health of the tree.

Grade changes don't affect trees. Any time a grade changes on a site, it affects the amount of oxygen available in the soil that roots need to survive. Even a house with a well can affect the water table. Oaks are especially sensitive to water table changes.

Trees are an obstacle in the construction process. Mature, well-placed trees add value to any property and should be protected. Instead of cutting roots to gain utility access, use underground boring equipment to minimize root damage. Or relocate the utility around the tree's critical root area.

The roots of a tree go as deep as the tree is high. This is almost always false. Most root systems are from 9" to 24" deep and spread well beyond the drip line of the tree. That's why cutting big, thick support roots at a sidewalk or street edge greatly increases the chance that tree will be uprooted in the next windstorm.

The perfect place to park your truck is under a tree on the job site. In reality, it is one of the worst. While your vehicle may only suffer an occasional bird dropping, the soil surrounding the tree's roots gets compacted from the weight of the truck, squeezing out its ability to gather oxygen and moisture. If enough of the soil is compacted by parked vehicles, stacked material or traffic, it will kill the tree.

Community Tree Profile:

6

Yellow Buckeye (Sweet Buckeye)

(Aesculus flava; formerly A. octandra)

by Laura G. Jull
Dept. of Horticulture
University of Wisconsin–Madison

Photos by Ed Hasselkus, UW–Madison

Aesculus flava flower

Aesculus flava fruit

Yellow Buckeye (Sweet Buckeye)

Native To: Southeastern Pennsylvania to southern Illinois, south to northern Georgia and Alabama, east to West Virginia, primarily in the Appalachian Mountains.

Mature Height: 60–75' tall, can get larger in southern climates; larger tree than Ohio buckeye (*Aesculus glabra*)

Spread: 25–35'

Form: Upright-oval to slightly spreading, symmetrical crown, coarse texture

Growth Rate: Moderate

Foliage: Distinctive, opposite, palmately compound leaves (5 leaflets all attaching at the same point at the end of the petiole). Each leaflet is 4–8" long (larger leaf than Ohio buckeye), oblong to upside-down egg-shaped, with a long tip at the end of the leaflet and finely serrated margins. Leaves are dark green above and yellow-green beneath, with some hairs on the undersides of the leaf, when developing; smooth when older. Leaves have a 3- to 4"-long petiole with each individual leaflet having its own petiole (petiolule). Leaves lack the foul odor that can occur in crushed leaves of Ohio buckeye. Produces leaves early in spring, compared to other native shade trees.

Buds and Stems: Terminal bud is large, 2/3" long, with smaller, lateral, opposite buds. Terminal buds lack the sticky resin that exotic *Aesculus* species produce, but contain numerous bud scales. Twigs are stout, ash-gray to brownish-green, lacking the skunk-like odor that occurs on cut or scratched twigs of Ohio buckeye. Large leaf scars on stems and twigs tend to curl upward at tips of branches.

Fall Color: Orange to orange-yellow, drops early in fall, but not as early as Ohio buckeye.

Flowers: Creamy yellow with a hint of green, borne in upright, 6- to 7"-long, 2- to 3"-wide panicles at the ends of branches in May; somewhat showy in flower. Flowers attract hummingbirds and butterflies. Flowers are brighter in color and the stamens are shorter than the petals, compared to Ohio buckeye flowers.

Fruit: Distinctive, large, smooth, light-brown, pear-shaped, 2- to 3"-long capsule, usually containing 1-2 shiny, mahogany-brown seeds with a light eyespot; poisonous to humans, pets and livestock. Fruit resembles Ohio buckeye fruit, but the husk on the fruit of Ohio buckeye is spiny, whereas the husk on yellow buckeye is smooth and leathery.

Bark: Gray to brownish-gray with large, flat, smooth plates; thin scales on older trunks.

Site Requirements: Prefers a deep, moist, rich, well-drained soil high in organic matter, and full sun. Tolerates slightly alkaline to acidic soils.

Hardiness Zone: 4a to 8a

Insect & Disease Problems: Compared to other species of *Aesculus*, it is not as plagued by foliar diseases such as leaf blotch caused by *Guignardia aesculi*. Yellow buckeye rarely gets leaf scorch compared to Ohio buckeye. Powdery mildew and lacebugs are usually minor problems compared to other buckeyes.

Suggested Applications: Yellow buckeye is a beautiful shade tree with excellent fall color and showy spring flowers. Suitable as a specimen, parkway or large lawn tree, or in naturalized areas.

Limitations: Fruit litter can become a problem, especially if used as a street tree. Best reserved for parks and other large areas. Fruit is poisonous and is often mistaken for the edible fruit of American chestnut (*Castanea dentata*). Yellow buckeye does need moist, well-drained soils and therefore does not perform well in hot and dry areas or in compacted soils. Trees should not be exposed to extended periods of drought or heat as leaves may scorch, but generally not severe compared to Ohio buckeye. Branches droop with age and will require pruning for clearance. Leaves cast dense shade, making growing grass underneath the tree difficult. Transplant in spring only.

continued on page 15

Urban Tree Health Matters:

Cytospora Canker of Spruces

by Glen R. Stanosz, Ph.D
Departments of Plant Pathology and Forest Ecology and Management
University of Wisconsin–Madison

Cytospora canker is a disfiguring and potentially lethal disease of conifers. It most commonly affects spruces (genus *Picea*), especially the highly favored Colorado blue spruce (*Picea pungens*, including its many varieties and cultivars). Although rarely affected by Cytospora canker within its natural range (e.g., the mountains of the western United States), these trees are commonly and severely damaged by Cytospora canker when planted as ornamentals in Wisconsin. Often beginning when trees are 15 to 20 years old, Cytospora cankers on urban spruce trees cause branch death, usually beginning low in the tree and progressing upward (figure 1). As branch after branch dies, this disease leads to loss of aesthetic value and premature removal of affected trees from the landscape.

A canker is a localized dead area (surrounded by living tissues) on the branch or trunk of a tree. Cytospora cankers result from colonization of spruce trees by the fungus *Leucocytospora kunzei*. In response to invasion by the fungus, spruces produce a copious amount of resin that oozes from the cankered bark, forming a bluish-white crust (figure 2), often dripping on branches below. Cutting into the margin of a canker will reveal resin-soaked inner bark that is colored deep reddish-brown. Tiny black fruiting bodies of the fungus develop in these cankers and produce spores that are disseminated by wind, rain or animals to other branches on the same tree and to other trees. Germination of these spores is followed by infection and colonization to produce new cankers. Needles discolor and drop as cankers expand and branches die. The inexperienced observer may erroneously suspect that needle diseases are the cause of such needle loss. Assistance in diagnosing Cytospora canker can be obtained from your tree health professional or Dr. Brian Hudelson at the UW–Madison Plant Disease Diagnostics Clinic, 608-262-2863, bdh@plantpath.wisc.edu; www.plantpath.wisc.edu/PDDC.

Management practices may help avoid Cytospora canker or prolong the usefulness of spruces affected by this disease in yards, gardens and parks. First, consider planting conifer species (such as pines) that are not affected by this disease. If a beautiful eastern white pine (*Pinus strobus*) will meet the need for a conifer at the desired location, it could be a fine alternative. If Colorado blue spruce is the choice, however, it would be best planted with considerable distance between trees and at a location with good air circulation. Dense plantings facilitate spread of spores from tree to tree and promote moist conditions that favor infection.

Figure 1: Bare Colorado blue spruce branches killed by Cytospora canker (Department of Plant Pathology file photo).

Figure 2: Dried resin on branch with Cytospora canker (Department of Plant Pathology file photo).

Onset and progression of Cytospora canker also is associated with stressful growing conditions that affect Colorado blue spruces growing far from their native geographic range. Therefore, measures to maintain tree vigor might be helpful. Proper soil preparation and provision of adequate growing space for root development are important, as well as irrigation during periods of drought. Grass is the enemy of trees, and grass should be replaced with mulch within the drip line of the tree crown. Fertilization to improve root system development may also be helpful, but excessive application of nitrogen fertilizers should be avoided.

What Damaged This Tree?

Photo by Cliff Englert, City of Janesville

Turn to page 15 to find out...

Involving Key Influential People

8

Adapted from the Community Tool Box, Kansas University, http://ctb.ku.edu.

So much of what we do in community work involves attempts to influence people—to continue healthy behaviors, to stop (or at least cut down on) unhealthy behaviors, to volunteer their time or make a financial donation, to attend our events and fund-raisers, and so on. When people have influence, they have some level of ability to sway or induce others into doing what they want them to do. Influence is something we're always trying to gain.

Luckily for us, we can often find people who already have this strange and wonderful quality and use their influence to our own advantage. Every community, no matter what size it is or how long it's been around, has its influential people—elected officials, business people, religious leaders or just ordinary citizens—who have a lot of influence when it comes to what decisions get made and how things happen.

What Do We Mean by Influential People?

These are the people in your community whose opinions are respected, whose insights are valued and whose support is almost always needed to make any big changes. An influential person may be a formal leader, such as a city commissioner or a well-respected minister, but may also be someone who people respect, like the owner of a well-loved local restaurant or a young mother whose activism has earned the trust of the people in her neighborhood. As you might imagine, there are many benefits having people like these supporting your initiative.

How Do You Identify and Meet the Influential People in a Community?

Some key people are obvious. Particular political figures—state representatives, mayors, etc.—become key figures as a direct result of their positions. How do you tell the players from the bystanders? And how do you get to know the players?

There are certain people in any community—some of whom may themselves be influential—who are likely to know just where the power and influence lies. Among these are, in no particular order:

- directors of human service and government agencies
- legislative aides
- grass roots activists
- religious leaders
- business leaders and people active in service clubs (Kiwanis, Rotary, Lions, etc.) or the chamber of commerce, who are usually members of the business and financial sector
- United Way directors and board members
- senior citizen activists

How Do You Involve Influential People?

Consider Which Influential People You'd Like to Get on Board.

Think about the influential people who are already involved or who have shown themselves to be supportive of your work. Brainstorm about ways you can get them more involved as well as ways you can make connections with influential people you haven't yet met.

One thing you can do to determine who these people are is to use the "snowball" technique. This simply means asking the people you know who are influential people to suggest other influential people in the community with whom you might consider connecting.

Determine Their Interests and How You Can Appeal to Them.

Find out what's important to these folks. Later on, you can use this information to persuade them to get involved in your organization or coalition. The

continued on page 9

Coming Events

October 3-6, 2004 – *Society of Municipal Arborists Annual Conference*, Marriott City Center, Denver, CO. Contact Jerri LaHaie at 706-769-7412 or urbanforestry@prodigy.net or visit www.urban-forestry.com/gpage.html.

October 4-6, 2004 – *Building for Greener Communities National Conference*, Lied Lodge & Conference Center, Nebraska City, NE. Contact the National Arbor Day Foundation at 402-474-5655, www.arborday.org/programs/Conferences.html or conferences@arborday.org.

October 14-15, 2004 – *Midwest Emerald Ash Borer Symposium*, DoubleTree Hotel, Novi, Michigan. Contact Kerry Gray at grayk@michigan.gov or visit www.emeraldashborer.info/symposium.cfm.

October 19, 2004 – *Wisconsin Arborist Association Fall Seminar*, Country Inn, Waukesha, WI. Contact Dave Graham, 608-756-5561 or dwgco@ticon.net.

Urban Forest Insect Pests:

Eyespot Galls on Maple

9

by Linda Williams, Forest Health Specialist
DNR Northeast Region

Have you ever noticed a perfect bull's-eye spot on your maple leaves and wondered what caused it? Maybe it was a yellow spot, or maybe it had a yellow center that was ringed in red. These spots on maple leaves are caused by a gall midge. You can find these bull's-eye galls on almost all maple species. Eyespot gall midge adults emerge in early spring and lay their eggs on the newly expanding leaves. As the eggs hatch and the maggots begin to feed on the new leaf growth, they irritate the leaves causing them to form bumps around the maggots and also causing the bright colors that catch your eye. The maggots will mature in just 8 to 10 days and then they will drop to the ground where they burrow into the soil to spend the rest of the year. The leaf-spot coloration will remain on the leaves throughout the year. Maple eyespot galls may be more or less noticeable from year to year due to weather and natural enemies. Because these insects don't do significant damage, no management is necessary. There are many leaf spots and leaf galls that maple can get, but most of them don't cause the tree any problems.

Photo by Linda Williams, WDNR

Eyespot gall on red maple.

Involving Key Influential People *continued from page 8*

simplest way is to ask them; you might also want to pay close attention to what other types of organizations and coalitions these people have been involved in.

Another important strategy to enlist influential people is to educate them about your issue and to establish yourself as an expert who can be helpful to them. If they see you as someone they can come to for reliable information, they're far more likely to help you. The same is true for policy makers, who might be the same people, or who might be legislative committee staffers, scholars, or members of think tanks or policy organizations.

Contact the Influential Community Members and Ask for Their Participation.

This can be as simple as making a phone call in cases where you already know the person, or it might involve meeting someone for a working lunch, sending a formal written invitation to become involved, or wangling an introduction out of people you know who are familiar with the influential person. Generally, more formal methods of contacting people are better when you don't know them as well, or when you're asking for a big favor. Whatever method you choose, be prepared to persuade that person.

Explain the Many Ways in Which They Can Become Involved.

There are a number of possible ways that these key people can support your organization or your cause. They can become members of your board of directors or of an advisory board, act as spokespersons for the organization in particular situations, help raise money, etc. *continued on page 11*

October 28-30, 2004 – *TCI Expo '04,* Detroit, MI. Contact Cyr@TreeCareIndustry.org or visit www.treecareindustry.org.

January 30-February 1, 2005 – *DNR Annual Urban Forestry Conference / Wisconsin Arborist Association Annual Conference and Trade Show*, Regency Suites Hotel and KI Conference Center, Green Bay, WI. Contact Dave Graham, 608-756-5561 or dwgco@ticon.net.

April 18-20, 2005 – *Trees & Utilities National Conference*, Embassy Suites Downtown, Omaha, NE. Contact the National Arbor Day Foundation at 402-474-5655, www.arborday.org/programs/Conferences.html or conferences@arborday.org.

May 23-25, 2005 – *Urban Wildlife Management national conference*, Lied Lodge & Conference Center, Nebraska City, NE. Contact the National Arbor Day Foundation at 402-474-5655, www.arborday.org/programs/Conferences.html or conferences@arborday.org.

If there is a meeting, conference, workshop or other event you would like listed here, please contact Dick Rideout at 608-267-0843 with the information.

Urban Wildlife:

10

Prescribed Burns to Maintain Grassland Habitats

by Ricky Lien, Urban Wildlife Specialist
DNR Bureau of Wildlife Management

From time immemorial, man has been fascinated with fire…

Nope, too poetic.

Under the right meteorological conditions, the combustion of organic matter…

Nope, too technical.

How about, wildlife managers use carefully controlled fires as a valuable tool for managing grasslands?

That statement sums up the use of *prescribed burns* by wildlife managers to improve and maintain native grasslands across much of the state. During April and early May each year, many wildlife biologists, technicians and seasonal staff rush to accomplish these burns during the narrow window of opportunity. And prescribed burns represent one of the most beneficial and cost-effective habitat management tools we have in wildlife management. But why are they beneficial and how are they done?

Photo by WDNR

A DNR wildlife technician patrols a firebreak during a prescribed burn.

Native grasslands, such as prairies and savannas, evolved under a regime of regular burning. These uncontrolled wildfires, begun by lightning or native inhabitants, regularly swept through these habitats and plants developed that thrived under these conditions. European settlement soon limited the number of uncontrolled grassland fires, but their value in maintaining native habitats remained. Grassland fires have many beneficial features:

- Fire can destroy woody vegetation that may be encroaching or taking over a native grass area. Also, some nonnative invasive species can't tolerate fire. Periodic burning removes these species and allows native species to flourish.
- Following a burn, the blackened soil absorbs sunlight and this warming action encourages the germination of seeds.
- After a few years without burning, the accumulation of dead plant material can actually inhibit new plant growth. Removal of the dead material by fire often rejuvenates grassland. The charred plant material is a valuable fertilizer.
- In those situations where landowners wish to reestablish native grassland, burning can be used to remove the existing vegetation, reducing the need for chemicals.

So, if we agree that burning is useful, how is it done?

The key ingredient in a prescribed burn is *control*. In fact, the opposite of a prescribed burn is a wildfire, which is defined as an uncontrolled fire. Many of the elements in conducting a prescribed burn are there to maintain control. After all, to just burn something isn't that difficult—just apply a flame to a combustible material. The trick in a prescribed burn is to burn only what you want and nothing more.

Once a grassy area has been targeted for a prescribed burn, the first step is to evaluate it and the surrounding area. What sort of fuel is available to burn? Are there homes or roads nearby that can be impacted by smoke? What's the purpose of the fire? Is there significant topography that will affect the fire? Is there a source of water nearby? All of these considerations and more are taken into account in a Burn Plan, a document that must be prepared before the Wisconsin DNR conducts any prescribed burn.

Physical preparation of the burn site usually only requires the establishment of firebreaks. Firebreaks are barriers that maintain a fire within an established boundary. They can take the form of existing physical features, such as roads, rivers, plowed fields or a previously burned area that has no fuel. Or a firebreak can be established, usually by mowing.

Once the Burn Plan is done and firebreaks are established, weather conditions play a key role in determining when the prescribed burn occurs. For a burn to be safe and effective, the weather conditions must fall within specific parameters. Wind speed and direction, relative humidity, the movement of weather fronts, and air temperature are all monitored to determine if a burn can proceed.

If the weather allows a burn to occur, people and equipment are assembled on site. And the Burn Boss—the person designated to be in charge—reviews the plans with the staff. A typical prescribed burn utilizes from five to ten people. One or two people usually light the fire, usually along the firebreaks in a very prescribed manner determined by wind direction. The rest of the crew usually carry water or other fire-fighting tools and constantly monitor the firebreak to make sure the fire stays contained within the boundary. In a change from just

continued on page 11

Organization Profile:

Wisconsin Woodland Owners Association

11

by Kristina Skowronski
DNR Southeast Region

Wisconsin's beauty is in its forests. Did you know that more than 60 percent of Wisconsin's forests are owned by private woodland owners? Assisting these landowners to become better stewards of their woodlands is the role of the Wisconsin Woodland Owners Association in Wisconsin's forest community.

The Wisconsin Woodland Owners Association, a statewide nonprofit, began in 1979. Its goals include:

- to advance the interests of woodland owners and the cause of forestry
- to develop public appreciation for the value of Wisconsin's woodlands and their importance in the economy and overall welfare of the state
- to foster and encourage wise use and management of Wisconsin's woodlands for timber production, wildlife habitat and recreation
- to educate those interested in managing Wisconsin's woodlands

WWOA has a variety of committees for any member to join. These include awards, finance, marketing, membership, publication, science, education and legislative committees. For a further description of what each specifically does, please check out WWOA's Web site, listed below.

There are 14 local chapters of WWOA in Wisconsin. These chapters serve to introduce neighboring woodland owners and help them learn about local forest issues. Each chapter has its own meetings and field days. Most can be accessed via the WWOA Web site.

Membership brings many benefits, including:

- the quarterly *Woodland Management* magazine.
- meetings, field days, conferences and workshops around the state
- national affiliation with the National Woodland Owners Association
- scholarships for high school students and teachers interested in forestry
- publications and videos to assist landowners on a variety of topics including timber sale contracts, forestry terms and practices, best management practices, endangered species, and insect and disease problems

For more information, visit the WWOA Web site at www.wisconsinwoodlands.org.

Prescribed Burns to Maintain Grassland Habitats

continued from page 10

ten or fifteen years ago, the use of four-wheelers and other all-terrain vehicles has become commonplace on these jobs. These "tools" allow an individual to move thirty or forty gallons of water, pumps and hoses around the perimeter of the fire.

Time and space don't allow me to go into a lot of detail regarding the actual burn event. Backfires, flank fires, head fires, flame height, swatters, breakouts, foaming agents and more are all part of prescribed burns. And burns done carelessly or incorrectly can risk property and lives. Thankfully, there are many DNR biologists and technicians with years of experience conducting these activities safely and efficiently, and they're more than willing to share their knowledge. For many of them, conducting prescribed burns is one of the most enjoyable activities of the year. And it's one of those exciting jobs that also happens to be one of the more beneficial for an important habitat.

Involving Key Influential People

continued from page 9

Maintain Their Involvement.

There are many ways this can be done, but first and foremost you must show your appreciation to any key influential who takes the time to get involved with your work. Giving public recognition to your supporters is important.

To Sum It Up

Influential people can provide an immense boost to the work we do in improving our communities. The simple fact is, to make real changes, we need to involve the people with the power. By understanding who they are and how to include them in our efforts, we greatly improve the chance that our work will succeed. And that puts us on the road to becoming influential people ourselves—the kind people come to when they want to get things done.

Council News:

Council Chair Jeff Edgar

Photo by Silver Creek Nurseries

Time flies when you're having fun. This will be my last article as chair of the Wisconsin Urban Forestry Council. Except for the deadlines, I've really enjoyed writing these articles. I hope you've enjoyed reading them.

Beginning with our July meeting, the new chairman of the urban forestry council will be Dave Liska. I'm sure he's familiar to many of you, with his many years as a member of Wisconsin Arborist Association and the city forester for Waukesha.

Our last council meeting was held on May 19 at the Department of Agriculture, Trade and Consumer Protection office building in Madison.

Among the issues tackled was the addition of staff to manage the Urban Forestry Grant program. This will help take the pressure off the regional coordinators and allow them more time to deal with the technical issues of urban forestry. Speaking of the coordinators, with the open position in the northern half of the DNR's Southeast Region, Kristina Skowronski is assisting Kim Sebastian half-time to help with the doubled workload. Kristina has also been hired half-time to assist in covering the vacant South Central regional position, which has been left open for over two years. Talk about burning the candle at both ends! The council will be sending various letters supporting the filling of these two vacant positions with full time staff.

Both Dave Liska and I reported on the organizations we represent on the council. Dave represents the cities with populations of 50,000 or more, while I represent the Wisconsin Landscape Federation. I'm sure Dave will be letting you know about what he's up to with his group. If you are interested in knowing more about WLF, you can check out their Web site, www.wislf.org.

Heather Mann has been very busy proposing a Governor's Task Force on Community Green Infrastructure. So far there are 39 different organizations that are backing the proposal. The council will be voting on this issue at our July meeting. Please check the Urban Open Space Foundation Web site at www.ouropenspaces.org to see if your organization is listed among the backers. Also see if you would be interested in joining the more than 40 members of the Community Open Space Partnership. If you would be interested in this group and proposed task force, contact Heather Mann and ask how you can help.

Happy trails to you, until we meet again – keep smiling until then.

Thanks for reading, Jeff Edgar

Village of Clinton *continued from page 3*

inventory was performed and a physical count of all trees present in each park and on public property was conducted.

In 2003, Clinton received a DNR urban forestry grant. Our project contained four components. The first three included cutting 13 trees affected by Dutch elm disease, planting 28 residential terrace trees, and completing the parks and public lands tree inventory. For the fourth, Clinton forestry officials completed three forestry education classes at nearby Blackhawk Technical College in Janesville. The total project value was $9762. This grant's satisfactory implementation fulfilled the National Arbor Day Foundation's standards to qualify Clinton for 2003 Tree City USA recognition.

On May 1, 2004, Clinton became a Tree City USA. Two deserving residents were recognized at the ceremony. One, Margaret Munroe, had written the 1998 letter to the park board about the community's forestry status. Hazel Zick, who completed 50 years of continuous community service in the Clinton Garden Club in 2003, planting and tending so very many flowers and trees around our community throughout those years, was the second. A serviceberry, with plaque, was planted in her honor.

Bill Ruston, Clinton's tree board chairman, also sits on the village's plan commission, contributing his expertise on issues dealing with village parks and forestry. The village's separate landscaping ordinance for private properties has been given more attention by the plan commission since the advent of the recent developments in village forestry.

Clinton's forestry officials desire to continue their controlled development of forestry actions and programs to best serve the interests of the entire community, the State of Wisconsin and the nation. The challenges already experienced of government's and residents' general lack of sound forestry knowledge, tight budgets, limited manpower and equipment, and the unknowns of pestilence and even world affairs, have been unable to deter the recently experienced advancement of forestry in Clinton. Armed with recently presented understandings of the important role that municipal forestry provides the village in so many economic, cultural, social and environmental area, it is believed that this program will now be supported and maintained in the permanent fabric of Clinton's future.

The Idea Exchange...

compiled by Jessica Schmidt
DNR Northeast Region

Planting Poster inserted in this issue

Last spring, this newsletter included a colorful "Proper Tree Pruning" poster in each issue. Now it's time for "Proper Tree Planting." Each poster is modeled after a traveling 8'x10' display that was far too large for everyday use, so we commissioned smaller versions. We hope you'll post each one prominently in your office and please feel free to request more copies of each. Contact your regional urban forestry coordinator.

Interesting Idea from Missouri

The Missouri Community Forestry Council is designing a state license plate to promote community trees. The council is continuing its research on this project, but has a design already in mind. It can be viewed on their Web site. What a creative way to gain urban forestry awareness and raise funds!! *Info: www.mocommunitytrees.com/pages/1/index.htm.*

Cornell Students Conduct Street Tree Inventories

Cornell University students and educators are conducting street tree inventories in New York communities with fewer than 2000 trees. The program uses six two-person crews all using Personal Digital Assistants. They average one tree per minute. The whole effort takes no more than two days per community. The municipality pays for the students' labor and provides street maps, right-of-way information and a contact person. The program is being conducted in two or three communities per year. The communities receive an electronic version of the data and assistance to keep the inventory current. *Info: Contact Paul O'Connor at 315-424-9485 ext.232 or pro3@cornell.edu*.

Tree Calendar

Inspired by the success of their 2004 version, the Colorado Tree Coalition has developed a "Notable Trees of Colorado" calendar for 2005. The committee took some great photos of notable trees throughout the state, raised money from corporate sponsors to fund the layout and printing, and then marketed and distributed the calendar. The calendars sell for $5 each. The committee defines a notable tree as one that is significant in some way, whether it is the largest of its species or has an historical anecdote. The calendar also includes tree care facts and reminders. *Info: www.coloradotrees.org/*.

Anti-topping Ad Placed in Yellow Pages

To raise awareness of the importance of hiring qualified tree care professionals, the city of McMinnville, Oregon, placed a public service announcement in the yellow pages of their local phone book in the tree care section. The announcement included an anti-topping message and encouraged residents to call the city's urban forestry department for more information.

13

Does your community or organization have an idea, project or information that may be beneficial to others? Please let your regional urban forestry coordinator know. We will print as many of these as we can. If you see ideas you like here, give the contact person a call. They may be able to help you in your urban forestry efforts.

Research Notes:

The Role of Arboriculture in a Healthy Social Ecology

by Frances E. Kuo, Assistant Professor
Human–Environmental Research Laboratory
University of Ilinois, Urbana-Champaign

In urban communities, arboriculture contributes to the health of the biological ecosystem and to the health of the social ecosystem as well. In a series of studies involving over 1300 person-space observations, 400 interviews, housing authority records and two years of police crime reports, tree and grass cover were systematically linked to a wide range of social ecosystem indicators. These indicators included stronger ties among neighbors, a greater sense of safety and adjustment, more supervision of children's play, more use of neighborhood common spaces, fewer incivilities, fewer property crimes and fewer violent crimes. The link between arboriculture and a healthier social ecosystem turns out to be surprisingly simple to explain. In residential areas, barren, treeless spaces often become no-man's-lands, which discourage resident interaction and invite crime. The presence of trees and well-maintained grass can transform these lands into pleasant, welcoming, well-used spaces. Vital, well-used neighborhood common spaces serve to both strengthen ties among residents and deter crime, thereby creating healthier, safer neighborhoods.

Reference: *Journal of Arboriculture Vol. 29, No. 3, May 2003*

Arbor Day Pictures

14

Poster contest winners tell Rex Zemke the inspirations behind their posters.

Photos by Don Kissinger

Photo by Kim Sebastian, WDNR

Grade-school students from Madison Elementary School in Wauwatosa gather around their newly planted honeylocust.

Photo by Kim Sebastian, WDNR

WE Energies celebrates their 6th year of Tree Line USA with a cake!

Photo by Kim Sebastian, WDNR

First graders from Hillside Elementary School in Brookfield participate in the Arbor Day festivities by sharing their tree posters.

Photo by Don Kissinger

Cub Scouts from the village of Gilman display the Tree City USA flag after planting three hackberries in the village park.

Photo by Don Kissinger

On a soggy Arbor Day, Student Society of Arboriculture members from UW–Stevens Point plant a tree.

Photo by Don Kissinger

Rex Zemke, Rothschild Village Forester, quizzes students about Arbor Day and the importance of trees.

Photo by Kim Sebastian, WDNR

Staff from the village of Hales Corners pose after planting this swamp white oak for Arbor Day.

Photo by Kristina Skowronski, WDNR

Saukville celebrates Arbor Day with the first-grade class of Saukville Elementary School.

Urban Forestry Resources:

Oak Wilt

compiled by Cindy Casey
DNR West Central Region

Oak Wilt Resources for Tree Managers

Oak Wilt: People and Trees – A Community Approach to Management
A new training tool on CD ROM, this self-paced short course was designed as a learning tool for urban and community foresters, city administrators, tree inspectors, parks and recreation staff, and others involved in oak wilt management. The CD is available at no charge as a technology transfer product from the North Central Research Station and the Northeastern Area, State and Private Forestry, of the USDA Forest Service. Copies can be ordered through the North Central Research Station's Web site at http://ncrs.fs.fed.us/pubs/products/oakwiltorder.asp.

Other Oak Wilt resources on the Web:

www.dnr.state.wi.us/org/land/Forestry/Fh/oakWilt/index.htm

www.dnr.state.wi.us/org/land/forestry/UF/Resources/OakWilt03.pdf

www.na.fs.fed.us/spfo/pubs/howtos/ht_nitidulid/nitidulid.htm

www.na.fs.fed.us/spfo/pubs/howtos/ht_oakwilt/toc.htm

www.plantpath.wisc.edu/pddc/Files/PDFFiles/Full%20Color/OAKWILT.pdf

http://cecommerce.uwex.edu/pdfs/G3590.PDF

www.extension.umn.edu/distribution/naturalresources/DD3174.html

15

Yellow Buckeye (Sweet Buckeye)

continued from page 6

Comments: Yellow buckeye is a showy, native, American shade tree that can be used in landscaping. It is less susceptible to foliar diseases and scorch compared to other buckeyes and horsechestnuts. Fruit attracts wildlife, especially squirrels and other mammals. The term buckeye refers to the North American species, whereas horsechestnut refers to either European or Asian species of *Aesculus*.

Common Cultivars or Selections: None

References:

Manual of Woody Landscape Plants: Their Identification, Ornamental Characteristics, Culture, Propagation and Uses, 5th ed. 1998, by Michael A. Dirr, Stipes Publishing, Champaign, IL.

Native Trees for North American Landscapes, 2004, by Guy Sternberg with Jim Wilson, Timber Press, Portland, OR.

North American Landscape Trees, 1996, by Arthur Lee Jacobson, Ten Speed Press, Berkeley, CA.

Trees of the Central Hardwood Forests of North America: An Identification and Cultivation Guide, 1998, by Donald J. Leopold, William C. McComb and Robert N. Muller, Timber Press, Portland, OR.

Trees for Urban and Suburban Landscapes, 1997, by Edward F. Gilman, Delmar Publishers, Albany, NY.

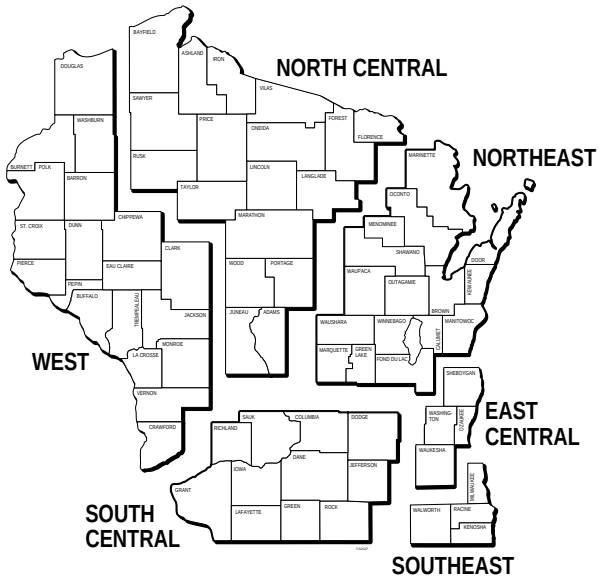
What Damaged This Tree?

Photo by Cliff Englert, City of Janesville

Answer: This ash tree was planted several years ago. The plastic tree wrap was never removed, however, and subsequent sprouts bound the wrap so it couldn't expand, causing this hourglass constriction at the base.

Do you have pictures of tree damage others ought to know about? Send them to Kim Sebastian (address on page 16) and we'll print them here!

Wisconsin DNR Urban and Community Forestry Contacts



World Wide Web Site: www.dnr.state.wi.us/org/land/forestry/uf/

West

Cindy Casey
Regional Urban Forestry Coord.
1300 West Clairmont Ave.
Box 4001
Eau Claire, WI 54702
Phone: (715) 839-1606
Fax: (715) 839-6076
e-mail:Cynthia.Casey-Widstrand@dnr.state.wi.us

North Central

Don Kissinger
Regional Urban Forestry Coord.
5301 Rib Mountain Drive
Wausau, WI 54401
Phone: (715) 359-5793
Fax: (715) 355-5253
e-mail: Don.Kissinger@dnr.state.wi.us

South Central

Kristina Skowronski
Regional Urban Forestry Assist.
3911 Fish Hatchery Road
Fitchburg, WI 53711
Phone: (608) 275-3227
Fax: (608) 275-3236
e-mail: Kristina.Skowronski@dnr.state.wi.us

State Coordinator

Dick Rideout
State Urban Forestry Coord.
101 S Webster St
PO Box 7921
Madison WI 53707
Phone: (608) 267-0843
Fax: (608) 266-8576
e-mail: Richard.Rideout@dnr.state.wi.us

Northeast

Tracy Salisbury
Regional Urban Forestry Coord.
1125 N. Military Ave.
P.O. Box 10448
Green Bay, WI 54307
Phone: (920) 492-5950
Fax: (920) 492-5913
e-mail: Tracy.Salisbury@dnr.state.wi.us

Southeast and East Central

Kim Sebastian
Regional Urban Forestry Coord.
2300 N. Martin Luther King Jr. Dr.
Milwaukee, WI 53212
Phone: (414) 263-8602
Fax: (414) 263-8661
e-mail: Kim.Sebastian@dnr.state.wi.us

SERVICE TO PEOPLE AND THEIR RESOURCE
DIVISION OF FORESTRY
SINCE 1904

Wisconsin Urban & Community Forests
A Quarterly Newsletter of the Wisconsin Department of Natural Resources, Forestry Division

P.O. Box 7921, Madison WI 53707

Address Service requested

Presorted Standard
U.S. Postage
Paid
Madison, WI
Permit 906